



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,333	06/24/2003	Robert W. Rush	070221-9012-01	2035
23409	7590	05/14/2004	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			KOVACS, ARPAD F	
			ART UNIT	PAPER NUMBER
			3671	
DATE MAILED: 05/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,333

Applicant(s)

RUSH, ROBERT W.

Examiner

Árpád Fábián Kovács

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/24/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-13, 17-22, 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Harden et al (5540558).

Harden discloses a compact linear actuator which is capable of being used and/or applicable to be configured for a lawnmower lifting system or any other powered implement (cl. 17-18, 26-27); the actuating system comprising:

As Harden discloses the details of compressor actuated actuator, valve & electric control system (col. 3-6, col. 7, lines 1-44);

an actuator device self-contained within a housing, the actuator device including a movable piston positioned in a cylinder portion of the housing, the cylinder portion defining a longitudinal axis, the piston being movable along the longitudinal axis in response to an accumulation of air pressure within the cylinder portion, a rod coupled to the piston for movement with the piston, the rod at least partially extending outside of the housing to couple to the object, and an air compressor located within the housing,

Art Unit: 3671

the air compressor transferring air from a location in the housing outside the cylinder portion to a location inside the cylinder portion; and an object coupled to a portion of the rod outside of the housing, the object being moved in response to movement of the piston;

further comprising a valve selectively fluidly connecting the location inside the cylinder portion and the location in the housing outside the cylinder portion;

wherein the valve selectively fluidly connects the location inside the cylinder portion and the location in the housing outside the cylinder portion to vent the air pressure from the cylinder portion;

wherein the valve comprises a solenoid valve selectively actuated by an electrical power source;

further comprising a switch selectively electrically connecting the solenoid valve and the power source;

further comprising a main power switch electrically connected with a power source; and a limit switch positioned within the housing adjacent the piston such that selective movement of the piston triggers the limit switch, the limit switch selectively electrically connecting the air compressor and the main power switch, wherein the main power

Art Unit: 3671

switch selectively electrically connects the air compressor and the power source to operate the air compressor;

wherein the object includes a powered implement carried by a motorized vehicle;

wherein the implement includes a mower deck carried by a riding lawnmower, and

wherein the actuator device is configured to raise and lower the mower deck relative to a mowing surface traveled by the riding lawnmower;

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14-16, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trefz et al (6543560), in view of Harden et al (5540558).

Trefz however discloses a clutch, pulley brake assembly for pulley system utilizing an actuator.

Harden discloses an improved actuator.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the clutch, pulley brake assembly of Trefz with the teachings of Harden, in order to prevent backflow from flowing outward from the compressor.

Art Unit: 3671

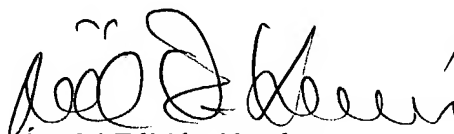
Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Linak (EP 531247), Cassoni, Graf, Frost, Noble.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Árpád Fábián Kovács whose telephone number is 703-308-5897. The examiner can normally be reached on Mo-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703 308 3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Árpád Fábián Kovács
Primary Examiner
Art Unit 3671

ÁFK